OUR NATURAL RESOURCES:

Future Voters
DISCUSSION GUIDE

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HAVE WE ENOUGH? WILL THEY LAST?

This fall a small flock of whooping cranes is migrating from breeding grounds in northern Canada to winter quarters at the Aransas Bay Federal Wildlife Refuge on the Gulf of Mexico.

For three good reasons they're remarkable birds:

They're almost six feet high—America's tallest wildfowl—and just as handsome.

They're the twenty-six sole survivors of many thousands which used annually to make the journey.

They're a natural resource like coal, or uranium, or zinc, or soil, or timber—and they're almost gone.

Can this also happen to other resources of greater practical value?

Recently Ernest T. Weir, Board Chairman of the National Steel Corporation, referring to iron deposits, warned, "If we are not careful we could completely exhaust all the ore in this country . . ." *

Our heavy industry and our defensive strength depend greatly on steel.

"Up to, say, twenty-five years ago," continued Mr. Weir, "we felt we had a lot of ore ahead. Then all at once we awakened to the fact that steel demand was growing rapidly and this ore was being worked out."

The beautiful big white birds, too, once seemed so plentiful that gunners blazed away heedlessly. Some still may do so, though shooting the cranes is now against the law.

Are more laws needed to save other natural resources?

The U. S. Fish and Wildlife Service and the National Audubon Society believe that the best way to save the cranes is to get people interested. So radio and video stations and newspapers will spread the word as the birds fly south, asking everyone not to molest them.

This idea of getting people interested can help conserve other resources, especially if we learn that an ample supply of one often depends on what happens to the rest.

The way a farmer many miles away cuts his trees or plows his furrows can affect the price of hamburger in our kitchen or reduce the amount of water we've become accustomed to use.

Everything that goes to make up our unparalleled standard of living—food, dwellings, gadgets, cars, clothing, movies, T.V. sets, jobs—comes out of natural resources. Life itself depends on them.

Earlier civilizations which failed to catch hold of this fact brought about their own downfall. The Indians of the ancient Mayan Empire in Central America cut down more and more trees, not realizing this would cause floods, washing away the soil which grew the crops they lived on. Now only the ruins of their temples remain.

It's common sense to avoid the mistakes of bygone civilizations which lost out because they used their resources unwisely.

Let's consider the problems of conservation and discuss what should be done.

**In U. S. News and World Report, September 10, 1954.*

WHAT IS CONSERVATION?

Conservation and hoarding are not the same thing. The miser who nearly starves himself to death gets little good from his money. He's about as badly off as the spendthrift who goes recklessly through his possessions.

Conservation means availing ourselves wisely of our natural resources of soil, water, vegetation, wild life, and minerals.

It means more than that. It means repairing damage already done to worn resources to bring back their yield.

There are two types of resources.

The first type—a resource which, once used up, is gone for good—is called nonrenewable. We blow thousands of tons of non-recoverable lead into the air each year from high-test gas because we enjoy a quick pick up.

The second type is the natural resource which can renew itself. It's like the whooping cranes. Given good conditions and half a chance, it can stage a comeback. An obvious example is timber, which we're using up almost twice as fast as it grows.

There's another thing we might think about concerning the meaning of conservation. Does the use of natural resources involve the problem of right and wrong? If a man living at the headwaters of a stream cuts down the forest which up to then has caused the rains to seep slowly into the channel, and the water rushes off all at once, is he or is he not morally responsible for the hardships of the farmers further along who count on a steady flow?

WHAT WE'VE DONE WITH OUR RESOURCES

No such concern as the one we've just discussed would have entered the heads of most of America's earliest settlers. The problem as they saw it was how to master the wilderness—too many trees so they couldn't plant crops, too many birds which gobbled up what they planted, too many animals which harassed their livestock. They attacked this superabundance as though nature were an enemy. Burning was the quickest way to get rid of the trees.

If the soil thus exposed presently yielded smaller crops, the settlers looked for more. They had a whole continent before them.

"Our lands were originally very good," wrote George Washington, "but use and abuse have made them quite otherwise. . . . We ruin the lands that are already cleared and either cut down more wood, if we have it, or emigrate into the Western country." But his was a voice crying in a wilderness of overabundance. Few of his fellow countrymen had similar foresight.

When the original states volunteered to hand over to the new federal government the western lands which they had formerly laid claim to, Congress acted on the principle that this huge domain should be parceled out to settlers as soon as possible, clearing the way for greater population, and presently, new states. Not till around 1835 did our representatives begin to debate bills aimed at providing protective legislation for the lands owned by the government, lest exploitation by a few take too big a share of what had been given to the people of all the nation.

In the South, where planters already owned most of the land, there was another situation. The South's two big crops, cotton and tobacco, though highly profitable, were causing unforeseen damage. Tobacco and cotton are called clean-tilled crops, meaning that cultivation leaves the soil bare. This gives the rain every chance to wash away the rich surface. Presently large areas were yielding so poor a return that the planters abandoned them as wasteland.

Only recently is the farming South, through better agricultural practices, beginning to look greener and more prosperous.

On the prairies, by 1837, the newly invented self-scouring steel plow was ripping up the tough grassland sod. The McCormick reaper made possible the harvesting of larger fields of grain. What was happening to the soil in the South began to happen in the West. The Homestead Act of 1862, making it easier for settlers, and the railroads, to acquire land, speeded up the conquest of the continent—and of its resources.

In 1873, the American Association for the Advancement of Science warned Americans about the timber supply. We were—they said—rapidly and recklessly using up our forest reserves. But the public in general, accustomed to the notion that our resources were inexhaustible, paid little attention. Two years later, a few who cared started the American Forestry Association, the earliest of the many organizations† of private citizens devoted to conservation.

The Forest Reserve Act, authorizing the President to set aside timberland still in the national domain, was passed by Congress in 1891.

Not till 1902, however, did the country, vigorously prodded by President Theodore Roosevelt, wake up to the need for conservation. Before Teddy Roosevelt, no President had truly grasped the idea that conservation holds a very basic relationship to the national welfare. Of course the fact that demand for some natural resources was catching up with supply and even threatening to run ahead of it had something to do with Teddy Roosevelt's views. But on top of that, his love of nature and

his robust personality formed a combination which was to make his crusade for conservation the outstanding accomplishment of his administration.

Theodore Roosevelt believed that the problems of conservation affected the entire world. By setting up a North American Conservation Commission he sought the cooperation of Canada and Mexico.

†*These include the National Audubon Society, the Izaak Walton League of America, the National Parks Association, the National Wildlife Federation, and the conservation committees of the Garden Club of America and of the National Council of State Garden Clubs.*

At home, with Gifford Pinchot, head of the U. S. Forest Service, as his able lieutenant, he set apart one hundred and fifty million acres of government timber as forest reserve. At the suggestion of Senator LaFollette of Wisconsin, he stopped the distribution into private hands of eighty-five million acres more in Alaska and the North West till the U. S. Geological Survey could find out what mineral and water power resources they contained. His leadership helped establish five national parks, four national game preserves, and fifty-one wild bird refuges. He signed the Reclamation Act that provided for irrigation projects under the supervision of the Federal Government. Boulder Dam in Colorado, Roosevelt Dam in Arizona, Grand Coulee on the Columbia River are among the Act's major accomplishments, bringing millions of acres into profitable use.

The first Commissioners of Inland Waterways, appointed by Theodore Roosevelt, tackled the job of looking into the whole relationship between rivers and soil and forests—a typically Rooseveltian way of sizing up conservation.

And in 1907, Theodore Roosevelt called together at the White House the first national conference on conservation. It found that we were running through our assets at an appalling rate. It set forth the principle that the nation's natural resources should be utilized for the welfare of the people. It came up with a number of recommendations, such as suggesting the regulation of lumber-cutting on private property. It advocated the retention by the government of all lands containing coal, oil, phosphate, natural gas, and power sites.

What is our opinion of these recommendations? What are our reasons?

The findings of the conference woke up the country. As one result, state after state set up conservation commissions. All this did a good deal to check heedless plunder of natural resources.

But after Theodore Roosevelt left office, conservation suffered a slump. Spendthrift use of what we had come to regard as inexhaustible resources is a habit hard to break. So hundreds of millions of tons of coal and ore kept on going to waste through careless methods of mining. Hundreds of millions of barrels of oil from newly drilled gushers soaked wastefully into the soil or flowed off down polluted rivers. Axe and saw, leaving behind a tangle of slash through which no young trees could grow, and forest fires mostly started through men's carelessness, laid waste millions of acres. Soil erosion inevitably ruined millions more.

A second Roosevelt—Franklin Delano—had a great deal to do with the nation's second major effort at conservation. In 1933 Congress passed and F.D.R. signed the Muscle Shoals Act, creating the Tennessee Valley Authority. Two years before, President Hoover had vetoed a similar bill on the grounds that the proposed hydroelectric and other plants to be built and operated by the Authority would put the government into direct competition with private industry.

The 1933 Act provides that the T.V.A.:

(1) construct and operate dams in the Tennessee Valley; (2) manufacture and sell nitrates and fertilizer; (3) generate and sell electric power, particularly with a view to encouraging rural electrification in a region up to then backward and underdeveloped; (4) plant and care for forests to reduce the danger of floods; (5) build up eroded wastelands; (6) develop the Tennessee River for navigation; (7) look after "the economic and social well-being of the people living in the . . . river basin."

Do we or do we not approve of such regional developments under federal auspices? What are our reasons for, what against?

On May 12, 1934, dust clouds darkened the sky. Swept across the continent by the wind, they obscured the sun over the Capitol at Washington. The topsoil of great areas in Oklahoma and neighboring prairie states, plowed up during and after the First World War to feed ourselves and Europe, was blowing away, some of it travelling so far as to fall in the streets of Atlantic seaboard cities. "The best place to get a Colorado farm"—went the wisecrack—"is in eastern Texas." The dust bowl disaster of the mid-thirties let Americans see with their own eyes that further action was called for. So the Soil Conservation Service was set up by Congress. Ever since 1935, it has been doing a job encouraging voluntary and cooperative action among farmers to use modern techniques aimed at building up their soil. Laws to encourage such practices were also passed in a number of states.

Is there a soil conservation project in our neighborhood? If so, what is it and how does it work?

What part should the Federal Government, what part should state and local action play in conservation?

Congress also passed laws to prevent overgrazing in public lands leased to cattlemen. Grass cropped too short lets both wind and water erode the land. It passed acts to make technical assistance available to forest owners who wish to put their woods on a permanent yield basis and otherwise improve them.

What reforestation projects do we know of in our area? What are the results?

There's one factor that plays hob with conservation which we have not considered yet. It's war—the greatest destroyer of natural resources.

The First World War dug into our supply to an extent no one before would have believed possible. World War II had an even bigger appetite. Billions of barrels of oil fed fleets and planes and tanks. Millions of tons of metals were shot into the air or sank in the sea. Stupendous expenditures like these drove home the fact that we've got to think very seriously about conserving our mineral resources.

In fact, the nineteen forties brought about a startling change in our national economy. From having a superabundance of raw materials we've shifted to not having enough. This doesn't mean we're a "have not" nation.

We still produce far more raw materials than any other country. But we better watch out. To provide for our needs, which have increased so enormously, we now bring in from other countries at least 9% of the raw materials we use. Formerly we exported copper, lead, and zinc. Now, to supply our factories, we've become the world's largest importers of these metals.

In July, 1954, a Senate committee reported that there were seventy-seven strategic minerals and materials, such as cobalt, beryllium, asbestos, titanium, which we are short on. The list includes also rubber, much of which comes to us from across the Pacific.

WHAT DO WE DO NEXT?

This enormous and speeded up consumption of natural resources, especially of metals and other minerals, throws the spotlight once more, and more sharply than ever, on the problems of conservation. After World War II, the official body appointed to look into the question was the Materials Policy Commission. Headed by William S. Paley, Board Chairman of the Columbia Broadcasting System, and with a membership of four other non-government men, its job was to tackle a matter never before carefully explored: the long-range materials outlook for the U.S.A. The commission sought the help of experts in industry, universities and laboratories, and government. It issued its findings in a five volume, 813 page report which has been described as one of the most valuable and readable government documents of the century. Everyone interested in conservation ought at least to dip into it. The problem of what to do about our natural resources has become too complex and important not to be carefully studied.

Looking ahead twenty-five years, the Paley Commission assumes that the U. S. economy will continue to grow—perhaps doubling its present volume by 1975. Hence, shortages will become all the more acute. This doesn't mean—states the commission—that by then lots of important resources will be all used up. What it means is that as richer, more accessible reserves of such staples as iron and copper ore are worked out, we'll be forced to turn to less accessible, less productive sources. It will cost more and more to get the same amount. The real threat, for the next twenty-five years, lies in rising costs.

For conservation in general, the Paley Commission suggests that its problems should not be considered just now and then. They require everyday attention and should be tackled cooperatively by government and citizenry.

The Paley Commission came up with a list of specific recommendations. Here are a few. We might treat each in turn as a topic for discussion:

MINERALS: develop less wasteful, more efficient methods of mining and smelting, and of producing finished products; hunt for new deposits at home;‡ develop better, cheaper methods of collecting and reprocessing scrap; in manufacturing, substitute plentiful materials for scarce; use more materials like plastics.

TIMBER: pass laws providing for regulation of cutting practices if within five years state legislation does not bring about practices that are up to federal standards.

RESEARCH: provide more government research on problems of conservation—soil management, plant and livestock disease control, forest fire fighting, and industrial technology.§

The Mid-Century Conference on Resources for the Future, the first such gathering since 1907, raised some vital questions, too. As with the earlier conference, a major purpose was to awaken public interest and concern over our sources of national wealth. The conference decided that one of its goals should be to block out the areas of agreement and disagreement on how best to conserve our resources. By now, most Americans are for conservation. But opinions differ on how to go about it. The problems that come up, because they involve people's personal interests and political convictions, can stir up plenty of heat.

Here's one of the questions that popped up at the conference which we, too, might discuss:

Should we continue to supply our needs as much as possible from domestic sources, regardless of expense? Or should we rely to considerable extent on imports of raw materials from abroad and encourage their production? (What are the arguments pro and con, and why do they come up?)

Though our future welfare may well depend on what we do about natural resources, there's as yet no long range U. S. policy for handling the problem. We've already discussed some of the difficulties that stand in the way of forming a policy—such as fear of government control. Another, of course, is the unpredictability of the future, in which almost anything may turn up. But that doesn't mean we should not make a try at solving the riddle.

According to the Paley report, the over all objective of a resources policy for the U. S. should be 'to insure an adequate and dependable flow of materials at the lowest cost consistent with national security and the welfare of friendly nations.'

How's that as a definition of the job?

Evolving a long-range national policy—if we get one at all—may take many years. But here's a question for a quicker answer:

How about ourselves and conservation? What can or should we do?_____

‡About 90% of the country still lacks adequate geological exploration and mapping by the government.
§We simply haven't enough technologists. As for basic research (research not directly applied to production or defense), we're slipping behind there, too.

Topic for November: "How May We Make The Atomic Age Constructive, Not Destructive?"